

Switch ON the MCU
File: H_FCP_SPI_MCUN.xls
Author: R. Biggins



Procedure Summary

Objectives

The objective of this procedure is to switch ON the Mechanisms
Steering Unit (MCU)

Summary of Constraints

n/a

Spacecraft Configuration

Start of Procedure

SPIRE is in SCU_ON mode

End of Procedure

SPIRE is in REDY mode

Reference File(s)

Input Command Sequences

Output Command Sequences

HFSMCUN

Referenced Displays

ANDs **GRDs** **SLDs**
SA_6_559
SA_4_559
SA_3_559

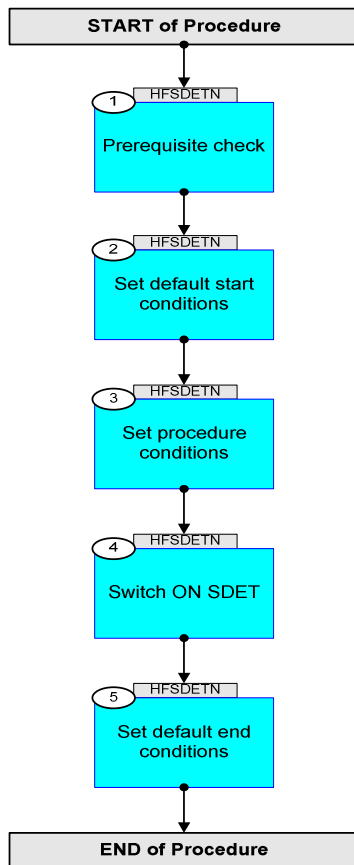
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
07/08/2007		1	Created	R. Biggins	
15/01/2008		2	Update due to initial testing against the simulator: 2 - TCs updated due to new DB	R. Biggins	

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Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
Beginning of Procedure				
HFSCMCUN Switch ON MCU				
SSID :				
1		Prerequisite check		Next Step: 2
		Verify Telemetry MODE SM00M500	= SCU_ON	AND=SA_6_559
2		Set default start conditions		Next Step: 3
	ET=+00.00.00 UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE ---- -- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE ---- -- SSID : 370	SC001500 80010001 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE ---- -- SSID : 370	SC003500 1 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 TC Control Flags : GBM IL DSE ---- -- SSID : 370	SC000500 B0000000 <hex>	

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	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500 80000000 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500 80020001 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 1 <hex>	
3		Set procedure conditions		Next Step: 4

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	RESET_DRCU_COUNTERS RESET_DRCU_COUNTERS TC Control Flags : GBM IL DSE ---- -- -- SSID : 370	SCD00505	
	ET=+00.00.01 UT=+00.00.01	SET_OBSID SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 TC Control Flags : GBM IL DSE ---- -- -- SSID : 370	SC000500 OBS_ID	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE ---- -- -- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE ---- -- -- SSID : 370	SC001500 80000000 <hex>	
	ET=+00.00.01 UT=+00.00.01	CLEAR_HK_REPORT CLEAR_HK_REPORT Command Parameter(s) : PCKTID_CLEARHK SPR6N500 TC Control Flags : GBM IL DSE ---- -- -- SSID : 370	SCR01500 300 <hex>	
	ET=+00.00.00 UT=+00.00.00	CLEAR_HK_REPORT CLEAR_HK_REPORT Command Parameter(s) : PCKTID_CLEARHK SPR6N500 TC Control Flags : GBM IL DSE ---- -- -- SSID : 370	SCR01500 301 <hex>	

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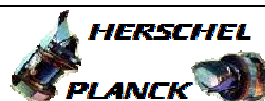
Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	DEFINE_NEW_HK_REPORT DEFINE_NEW_HK_REPORT Command Parameter(s) : HKPCKTID_DEFINENEWHK SPR0N500 HKSID_DEFINENEWHK SPR1N500 HKINTERVAL_DEFINENEWHK SPR2N500 HKREPEAT_DEFINENEWHK SPR3N500 TABLEID_DEFINENEWHK SPR4N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCR00500 300 <hex> 300 <hex> 7d0 <hex> 1 <hex> 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	DEFINE_NEW_HK_REPORT DEFINE_NEW_HK_REPORT Command Parameter(s) : HKPCKTID_DEFINENEWHK SPR0N500 HKSID_DEFINENEWHK SPR1N500 HKINTERVAL_DEFINENEWHK SPR2N500 HKREPEAT_DEFINENEWHK SPR3N500 TABLEID_DEFINENEWHK SPR4N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCR00500 301 <hex> 301 <hex> fa0 <hex> 1 <hex> 1 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500 89000001 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_MODE SET_OBS_MODE Command Parameter(s) : OBSERVING_MODE SP02N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC002500 102 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry MODE SM00M500	= MCU_BOOT	AND=SA_6_559
4		Switch ON SDET		Next Step: 5
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetDRelOnOff SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 A0870004 <hex> 0 <hex> (Def)	
		Verify Telemetry SCUDCDCSTAT SM_2F520	= 0004 <hex>	AND=SA_4_559
	ET=+00.00.05 UT=+00.00.05	Send DRCU command to set Subsystem I/F control word SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 90010005 <hex> 0 <hex> (Def)	
		Verify Telemetry MCUIFCTRL SMD2F515	= 0005 <hex>	AND=SA_3_559
	ET=+00.00.05 UT=+00.00.05	Send DRCU command to set Subsystem I/F control word SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 90010007 <hex> 0 <hex> (Def)	
		Verify Telemetry MCUIFCTRL SMD2F515	= 0007 <hex>	AND=SA_3_559
	ET=+00.00.05 UT=+00.00.05	Send DRCU command to set Subsystem I/F control word SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 90010003 <hex> 0 <hex> (Def)	

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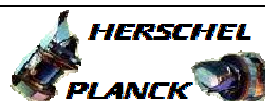
Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry MCUIFCTRL SMD2F515	= 0003 <hex>	AND=SA_3_559
	ET=+00.00.05 UT=+00.00.05	Send DRCU command to set Subsystem I/F control word SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 90010007 <hex> 0 <hex> (Def)	
		Verify Telemetry MCUIFCTRL SMD2F515	= 0007 <hex>	AND=SA_3_559
	ET=+00.00.05 UT=+00.00.05	Send DRCU command SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 9021C000 <hex> 0 <hex> (Def)	
	ET=+00.00.05 UT=+00.00.05	Send DRCU command SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 90240001 <hex> 0 <hex> (Def)	
	ET=+00.00.05 UT=+00.00.05	Send DRCU command to SetPack10Param3 SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 91C90067 <hex> 0 <hex> (Def)	
		Verify Telemetry MCUPCKT10PARAM03 SMM2N515	= 0067 <hex>	AND=SA_3_559

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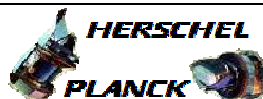
Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	Sent DCRU command to SetPack10Param4 SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 91CA0070 <hex> 0 <hex> (Def)	
		Verify Telemetry MCUPCKT10PARAM04 SMM3N515	= 0070 <hex>	AND=SA_3_559
	ET=+00.00.01 UT=+00.00.01	Sent DRCU command to SetPack14Param4 SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 91D4006B <hex> 0 <hex> (Def)	
		Verify Telemetry MCUPCKT14PARAM04 SMDN515	= 006B <hex>	AND=SA_3_559
	ET=+00.00.01 UT=+00.00.01	SET_OBS_MODE SET_OBS_MODE Command Parameter(s) : OBSERVING_MODE SP02N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC002500 200 <hex>	
		Verify Telemetry MODE SM00M500	= REDY	AND=SA_6_559
5		Set default end conditions		Next Step: END
	ET=+00.00.00 UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 0 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- SSID : 370	SC001500 80000000 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- SSID : 370	SC001500 80030001 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- SSID : 370	SC003500 1 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_OBSID SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 TC Control Flags : GBM IL DSE --- -- SSID : 370	SC000500 B0000000 <hex>	

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	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500 80000000 <hex>	
End of Procedure				